

BOOK REVIEW

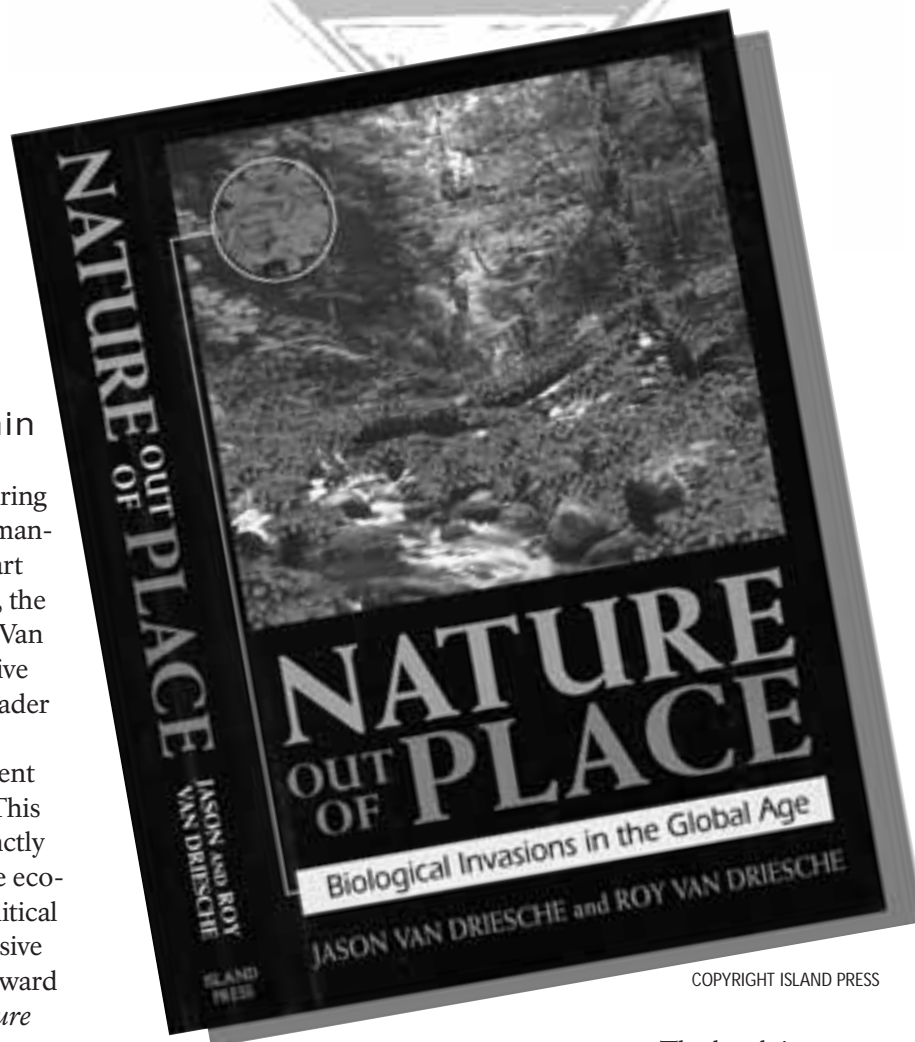
NATURE OUT OF PLACE:

Biological Invasions in the Global Age

By Jason Van Driesche and Roy Van Driesche

A Book Review by Pamela K. Benjamin

Nature *Out of Place* carries an unwavering message throughout: invasive species management has been, and for the most part remains, essentially reactive. However, the son and father team of Jason and Roy Van Driesche avoid the typical “doomed” vision of invasive species management. Instead the authors lead the reader progressively away from the most extreme problems toward public involvement and hopeful solutions. This well-written book distinctly and clearly identifies the ecological, cultural, and political complexities of the invasive species issue. Geared toward a general audience, *Nature Out of Place* serves as an excellent, nontechnical reference, providing a wealth of information related to the history, ecology, and urgency needed in addressing biological invasions.



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The book is separated into three parts. Part one focuses on the scope and history of the invasive species issue. Part two examines the ecological consequences of and the human responses to nonnative invasions. Part three shifts the focus to public awareness and suggestions for what everyday people can do about bio-

logical invasions. Each part of the book provides specific case studies (written in first person) followed by background essay-style chapters designed to provide the reader with more depth and knowledge of issues raised in the case studies. Jason Van Driesche, a graduate student at the University of Wisconsin, takes the readers on a personal journey to the “front

lines,” providing firsthand interviews with field scientists and land managers. Roy Van Driesche, a University of Massachusetts professor and biological control researcher, provides the scientific background.

Chapter one begins with a case study of feral pigs and the conversion and loss of native forests in Hawaii. The

authors deliver a superb overview of this issue and eloquently lead the reader through the mire of direct and indirect impacts created by this species, including facilitating the establishment of additional nonnative species. This chapter highlights the complexity of dilemmas faced by land managers in battling biological invasions, but the authors do not stop here. Additional chapters detail zebra mussel invasion in the Ohio River basin, decades of leafy spurge presence on the northern Great Plains, woolly adelgid invasion and the loss of eastern hemlock forest, the devastation of beech bark disease, the dramatic loss of the American chestnut, the current threat of the Asian longhorned beetle, and the impacts of sheep on Santa Cruz Island at Channel Islands National Park.

How did these biological invasions happen and why do they remain such a worldwide threat? The authors provide an insightful overview of the dramatic transformations that human culture and commerce (transportation technology) have brought to native habitats throughout the world, starting with foot travel, to the age of the sail, to development of mechanized travel, and ending with the “homogenizing of the planet” in the modern age of globalization. This unique and objective summary cannot help but leave the reader contemplating the realities of globalization and the fact that “For the first time in history, it is laws and good judgment—not cargo space or speed—that [will] serve as constraints on species translocations.”

The middle section of the book (chapters 4–11) explores the larger themes that frame the issues identified within the case studies: What are the characteristics of effective invaders? What makes native ecosystems vulnerable to invasion? What are the ecological consequences of invasive species? How have we responded as a society to the threats presented by biological invasions? This section

of the book provides the reader with a good (although at times over-generalized), nontechnical synopsis of many complex ecological issues. Despite some ecological shortcomings (and a bias for the use of biological control), the authors do an exemplary job of introducing the reader to the “bigger picture” concepts: (1) thinking about ecosystem degradation and biological invasions holistically (the presence of invasive species is as often symptomatic as it is a direct cause), (2) thinking about risk in a biological (not just an economical) context, (3) identifying active prevention measures to limit the unintentional movement of invasive species, and (4) developing a stronger legal framework and policies for prevention. The take-home message for this section of the book is extremely important and indisputable—“More effective *prevention* methods have to become an integral part of how society works while there are still invasions to prevent.”

The final section of the book brings the issue of biological invasions home to the reader and is entitled “Going local in the global age.” Whether forming or participating in invasive species action committees, restoring “nature” in an urban environment, or simply landscaping our homes with native plants, the authors remind us that there is hope and that we (the public), through our actions and our informed judgments, are the solution to the issue of biological invasions.

This book is a “must read” for anyone involved with the management, protection, or interpretation of natural lands! *Nature Out of Place* is an effective tool for increasing public understanding and awareness of the invasive species problem.

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